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TCC/IF/P.R.

Dr. J. Lederberg,
Department of Genetics,
University of Wisconsin College of Agriculture,
Madison 6,
Wisconsin,
U. S. A.   4th October, 1950.

Dear Dr. Lederberg,

          Very many thanks for your kind letter of 22nd September
which has just arrived.   I have not yet digested the enclosures
and will reserve comment until a later date, but I am sure they will
prove interesting.

          I have now been joined in the recombination-fraction/
map-distance work by a mathematical colleague, Alan Robertson.
Our line of approach is an attempt to synthesise (i) A distribution
of chiasmata in a bivalent arm, assuming some chiasma-interference
function such as that proposed by Owen (Proc. Roy. Soc., 1949)
but applied to the formation of chiasmata in the four-strand
stage;   (ii) A chromatid-interference function which has a maximum
when the two chiasmata are adjacent, and falls away exponentially
as chiasma separation increases.   Chiasma/~~function~~ is still
supposed to be a chain of events starting from the centromere.

          We appreciate, of course, that this model may not
necessarily bear a very close resemblence to biological fact;
but feel that it is probably on the right lines and worth following
up to see its implications.

          Very many thanks for your kindness.

                                        Yours sincerely,

                                        (T. C. Carter.)